

Study of Cave Swallow Food Habits

Learner Outcomes

The learner will

- Analyze food data.
- Write a rationale for the importance of knowing food habits.
- Construct a food web depicting the food habits as they relate to the niche of the species and its place in the environment.
- Analyze rough data.

Background

Learning about the food habits of a species is vital to understanding its place in the balance of nature. While food habits of many common species are well studied, similar data for most species is scanty and often anecdotal. Knowing the food requirements of any species is essential, especially if the species is rare or of limited range.

Materials

- Supplement numbers 4.7, 4.8
- Published papers on the food habits of cave swallows
- Insect field guides

Assessments

- Field notes
- Insect identification
- Food web
- Written rationale for the importance of food habits
- Analysis of rough data

Activity #1

Analyzing Published Data on Cave Swallow Food Habits

1 class period

Procedure

The teacher will

- Have students read published papers and note the insects recorded.
- Instruct students to classify insects into family, and where possible into genus and species.
- Have students note the time of year of the observation and the location.
- Encourage students to draw conclusions about the food preference of cave swallows.
- Have students write a rationale for the importance of knowing food habits.

Activity #2
Food Web
30 minutes

Procedure

The teacher will

- Review supplement 4.7 with students.
- Instruct students to depict the food habits of the cave swallow as they relate to its niche in the environment.

Activity #3
Analysis of Rough Data from Carlsbad Cavern
2 class periods

Procedure

The teacher will

- Instruct students to identify insects by family and where possible genus and species, using drawings of insects, historical records from Carlsbad Cavern and insect field guides.
- Have students note the frequency of each type of insect.
- Have students make observations regarding type of insect taken, time of year taken, percentage of total take.
- Have students draw conclusions to the feeding strategy of the cave swallow.